

CLAIMS

1. A communication system adapted to establish connections to, and between, Internet users, characterised in that said communication system includes a cellular radio communication network adapted to provide a short message service (SMS), and a server adapted to facilitate the establishment of a telephony/Internet connection between a mobile subscriber station of said network and an Internet user, and in that said SMS is adapted to transfer:

- 10 - from said mobile subscriber station to said server, information identifying the Internet address for said Internet user; and
- from said server to said mobile subscriber station, information relating to said connection between said mobile subscriber station and said Internet user.

2. A communication system as claimed in claim 1, characterised in that said SMS is used to transfer the following information to said telephony/Internet server:

- 15 - the Internet address for an Internet-connected computer terminal of said Internet user; and
- a specific identity for said mobile subscriber station.

25 3. A communication system as claimed in claim 2, characterised in that said specific identity for said mobile subscriber station is a telephone number for said mobile subscriber station.

30 4. A communication system as claimed in claim 2, or claim 3, characterised in that said telephony/Internet server includes analysing means for effecting, on receipt of said SMS-transferred information, an A-number analysis to determine the A-telephone number identity of said mobile subscriber station.

5. A communication system as claimed in any of claims 2 to 4, characterised in that

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said telephony/Internet server is adapted, in response to receipt of said SMS-transferred information from said mobile subscriber station, to send an SMS to said mobile subscriber station including the following information:

5 - that call connection to said Internet user is possible; and

 - the server's telephone number.

6. A communication system as claimed in claim 5, characterised in that said 10 telephony/Internet server is adapted, on receipt of a call from said mobile subscriber station, made using the server's telephone number, to:

 - identify said mobile subscriber station (calling party);

 - associate the telephone call with the Internet address previously transferred to said server by said mobile subscriber station; and

 connect the telephone call to the Internet address.

20 7. A communication system as claimed in claim 6, when appended to either claim 4, or claim 5, characterised in that said telephony/Internet server is adapted to identify said mobile subscriber station (calling party) using said A-number analysing means.

25 8. A communication system as claimed in claim 7, characterised in that said Internet address is associated with the A-telephone number of said mobile subscriber station for a specific period of time which is monitored by a system timer.

30 9. A communication system as claimed in any of claims 6 to 8, characterised in that said telephony/Internet server is adapted to connect the telephone call directly to the Internet address.

10. A communication system as claimed in any of claims 6 to 8, characterised in that said telephony/Internet server is adapted to connect the telephone call to the Internet

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address via at least one additional Internet server, a server at the end of this chain being adapted to provide Internet telephony services.

5 11. A communication system as claimed in any preceding claim, characterised in that said telephony/Internet server includes means for establishing and storing a list of Internet addresses for each mobile subscriber station user subscribing to the system, and in that each one of said Internet addresses has an address list number.

10 12. A communication system as claimed in claim 11, characterised in that said telephony/Internet server is adapted, in response to receipt of said SMS-transferred information from said mobile subscriber station, to send an SMS to said mobile subscriber station including the following information:

- 15 - that call connection to said Internet user is possible;
 - the server's telephone number; and
 - an address list number for the Internet address, each address list number corresponding to one of the Internet addresses in the mobile subscriber station user's address list in the telephony/Internet server.

20 13. A communication system as claimed in claim 12, characterised in that said address list numbers are stored in a respective mobile subscriber station's telephone number list.

25 14. A communication system as claimed in any of claims 11 to 13, characterised in that a mobile subscriber station is adapted to request from said telephony/Internet server, and said telephony/Internet server is adapted to supply to the mobile subscriber station, a complete listing of the Internet address list.

30 15. A communication system as claimed in any of claims 11 to 13, characterised in that a mobile subscriber station is adapted to search for a specific one of the Internet addresses stored by said telephony/Internet server.

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16. A communication system as claimed in any of claims 11 to 13, characterised in that said telephony/Internet server is adapted, on receipt of a call connection request from a mobile subscriber station to an unlisted Internet address, to:

- 5 - store, and assign an address list number to, the unlisted Internet address; and
- send back, to the mobile subscriber station, via SMS, the following information to enable a user of said mobile subscriber station to call said Internet address:
- 10 - the assigned address list number;
- the server's telephone number; and
- information that call connection is possible to the Internet address.

17. A communication system as claimed in any one of the preceding claims, characterised in that said cellular radio communication network is a GSM network.

20 18. A method for enabling a mobile subscriber station of a cellular radio communication network to make an Internet telephone call to an Internet user, characterised by the use of SMS to transfer:

- 25 - from said mobile subscriber station to a telephony/Internet server information identifying the Internet address for said Internet user; and
- from said telephony/Internet server to said mobile subscriber station, information relating to said connection between said mobile station and said Internet user.

30 19. A method as claimed in claim 18, characterised by said SMS being used to transfer the following information to said telephony/Internet server:

- the Internet address for an Internet-connected computer terminal of said Internet user; and

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- a specific identity for said mobile subscriber station.
20. A method as claimed in claim 19, characterised in that said specific identity of said mobile subscriber station is a telephone number for said mobile subscriber station.
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21. A method as claimed in claim 19, or claim 20, characterised by said telephony/Internet server, on receipt of said SMS-transferred information, using A-number analysis to determine the A-telephone number identity of said mobile subscriber station.
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22. A method as claimed in any of claims 19 to 21, characterised by said telephony/Internet server, in response to receipt of said SMS-transferred information from said mobile subscriber station, sending an SMS to said mobile subscriber station including the following information:
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- that call connection to said Internet user is possible; and
 - the server's telephone number.
20. 23. A method as claimed in claim 22, characterised by:
- said mobile subscriber station calling the server's telephone number; and
 - said server, on receipt of the call from said mobile subscriber station:
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- identifying said mobile subscriber station (calling party);
 - associating the telephone call with the Internet address previously transferred to said server by said mobile subscriber station; and
 - connecting the telephone call to the Internet address.
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24. A method as claimed in claim 23, when appended to either claim 21, or claim 22.

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characterised by said telephony/Internet server identifying said mobile subscriber station (calling party) using said A-number analysis.

5 25. A method as claimed in claim 24, characterised by associating said Internet address with the A-telephone number of said mobile subscriber station for a specific period of time, and by monitoring said period of time.

10 26. A method as claimed in any of claims 23 to 25, characterised by said telephony/Internet server connecting the telephone call directly to the Internet address.

15 27. A method as claimed in any of claims 23 to 25, characterised by said telephony/Internet server connecting the telephone call to the Internet address via at least one additional Internet server, a server at the end of this chain being adapted to provide Internet telephony services.

20 28. A method as claimed in any of claims 18 to 27, characterised by said telephony/Internet server establishing and storing a list of Internet addresses for each mobile subscriber station user wishing to make Internet telephone calls, and by each one of said Internet addresses having an address list number.

25 29. A method as claimed in claim 28, characterised by said telephony/Internet server, in response to receipt of said SMS-transferred information from said mobile subscriber station, sending an SMS to said mobile subscriber station including the following information:

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- that call connection to said Internet user is possible;
 - the server's telephone number; and
 - an address list number for the Internet address, each address list number corresponding to one of the Internet addresses in the mobile subscriber station user's address list in the telephony/Internet server.

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30. A method as claimed in claim 29, characterised by storing said address list numbers in a respective mobile subscriber station's telephone number list.

5 31. A method as claimed in any of claims 28 to 30, characterised by a mobile subscriber station requesting a complete listing of the Internet address list from said telephony/internet server.

10 32. A method as claimed in any of claims 28 to 30, characterised by a mobile subscriber station searching for a specific one of the Internet addresses stored by said telephony/internet server.

15 33. A method as claimed in any of claims 28 to 30, characterised by said telephony/internet server, on receipt of a call connection request from a mobile subscriber station to an unlisted Internet address:

20 - storing, and assigning an address list number to, the unlisted Internet address; and

25 - sending back, to the mobile subscriber station, via SMS, the following information to enable a user of said mobile subscriber station to call said Internet address:

30 - the assigned address list number;

- the server's telephone number; and

- information that call connection is possible to the Internet address.

34. A method as claimed in any one of claims 18 to 33, characterised in that said cellular radio communication network is a GSM network.

35. A method for enabling a mobile subscriber station of a cellular radio communication network to make an Internet telephone call to an Internet user, characterised by:

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- a user of said mobile subscriber station sending the following information to a telephony/Internet server using SMS:
 - information identifying the Internet address for said Internet user; and
 - the specific identity of said mobile subscriber station (for example, the telephone number for the mobile subscriber station);
 - said telephony/Internet server, in response to receipt of said information, sending an SMS to said mobile subscriber station, said SMS including the following information:
 - that connection to said Internet address is possible; and
 - the server's telephone number;
 - a user of said mobile subscriber station, on receipt of the SMS from the server, calling the server's telephone number; and
 - the server, on receipt of the telephone call from the mobile subscriber station:
 - identifying the calling party (mobile subscriber station) using, for example, A-number analysis; and
 - associating the telephone call with the Internet address previously received in the SMS from the mobile subscriber station; and
 - connecting the telephone call to the Internet address.
- 30 36. A method for enabling a mobile subscriber station of a cellular radio communication network to make an Internet telephone call to an Internet user, characterised by:

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- establishing and storing a list of Internet addresses for each mobile subscriber station user wishing to make Internet telephone calls;
- assigning, for each address in the Internet address list, a number which uniquely identifies these addresses;
- a user of said mobile subscriber station sending the following information to a telephony/Internet server using SMS:
 - information identifying the Internet address for said Internet user; and
 - the specific identity of said mobile subscriber station (for example, the telephone number for the mobile subscriber station);
- said telephony/Internet server, in response to receipt of said information, sending an SMS to said mobile subscriber station, said SMS including the following information:
 - that connection to said Internet address is possible;
 - the server's telephone number; and
 - an address list number for the Internet address, each address list number corresponding to one of the Internet addresses in the mobile subscriber station user's address list in the telephony/Internet server;
- a user of said mobile subscriber station, on receipt of the SMS from the server, calling the server's telephone number;
- the telephony/Internet server, on receipt of the telephone call from the mobile subscriber station, transmitting a voice message to said mobile subscriber station requesting the user to key in an address list number; and

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- when said mobile subscriber station user keys in said address list number, said telephony/Internet server connecting the user of said mobile subscriber station to an Internet user at the Internet address corresponding to the address list number.

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37. A method as claimed in claim 36, characterised by said telephony/Internet server, in the absence of a response from the Internet user, notifying the user of said mobile subscriber terminal by means of either a voice message, or tones, as in conventional telephony.

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38. A method as claimed in claim 37, characterised by said notification being that the Internet user is engaged, or is not replying, or does not have an Internet telephony application.

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